Recombinant Human GSTM5, GST-tagged

Cat. No. GSTM5-27772TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human GSTM5 with a N terminal proprietary tag: predicted molecular weight 50.05 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	218 amino acids
Description	Cytosolic and membrane-bound forms of glutathione S-transferase are encoded by two distinct supergene families. At present, eight distinct classes of the soluble cytoplasmic mammalian glutathione S-transferases have been identified: alpha, kappa, mu, omega, pi, sigma, theta and zeta. This gene encodes a glutathione S-transferase that belongs to the mu class. The mu class of enzymes functions in the detoxification of electrophilic compounds, including carcinogens, therapeutic drugs, environmental toxins and products of oxidative stress, by conjugation with glutathione. The genes encoding the mu class of enzymes are organized in a gene cluster on chromosome 1p13.3 and are known to be highly polymorphic. These genetic variations can change an individuals susceptibility to carcinogens and toxins as well as affect the toxicity and efficacy of certain drugs. Diversification of these genes has occurred in regions encoding substrate-binding domains, as well as in tissue expression patterns, to accommodate an increasing number of foreign compounds.

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Conjugation	GST
Molecular Weight	50.050kDa inclusive of tags
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	MPMTLGYWDIRGLAHAIRLLLEYTDSSYVEKKYTLGDAPD YDRSQWLNEKFKLGLD FPNLPYLIDGAHKITQSNAILRYI ARKHNLCGETEEEKIRVDILENQVMDNHMELVRL CYDPDF EKLKPKYLEELPEKLKLYSEFLGKRPWFAGDKITFVDFLA YDVLDMKRIFE PKCLDAFLNLKDFISRFEGLKKISAYMKS SQFLRGLLFGKSATWNSK
Sequence Similarities	Belongs to the GST superfamily. Mu family.Contains 1 GST C-terminal domain.Contains 1 GST N-terminal domain.

GENE INFORMATION

Gene Name	GSTM5 glutathione S-transferase mu 5 [Homo sapiens]
Official Symbol	GSTM5
Synonyms	GSTM5; glutathione S-transferase mu 5; glutathione S transferase M5; glutathione S-transferase Mu 5;
Gene ID	2949

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mRNA Refseq	NM_000851
Protein Refseq	NP_000842
MIM	138385
Uniprot ID	P46439
Chromosome Location	1p13.3
Pathway	Biological oxidations, organism-specific biosystem; Drug metabolism - cytochrome P450, organism-specific biosystem; Drug metabolism - cytochrome P450, conserved biosystem; Glutathione conjugation, organism-specific biosystem; Glutathione metabolism, organism-specific biosystem;
Function	glutathione transferase activity; transferase activity;

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